

REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the remarks which follow, are respectfully requested.

The specification has been amended to update the status of two copending applications. Claims 1 and 34 have been amended to specify that the carrier described therein consists essentially of the specified layers and to clarify that the glass fiber mat is pre-consolidated. Claim 1 has also been amended by inserting the feature of canceled claim 12. Claims 3 and 4 were amended in response to an objection raised in the Office Action. Claims 1, 3-11, 13-16 and 32-34 are currently pending in this application.

Claims 3 and 4 were objected to for the reason given in paragraph (3) of the Office Action. This objection has been obviated by the present amendments.

Claims 1, 3-5, 9, 11, 12, 15, 16 and 32 were rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,092,622 to Hiers et al and further evidenced by U.S. Patent No. 4,522,876 to Hiers for the reasons given in paragraph (5) of the Office Action. Reconsideration and withdrawal of this rejection are respectfully requested in view of the above amendments to claim 1 and for at least the following reasons.

The laminates disclosed in Hiers et al '622 comprise an insulating layer (43) composed of insulating fibers and fibrous layers (41) and (42) on opposite sides of the layer (43). The layers are needled from both sides to form tufts (46) on the surface of both fibrous layers. Adhesive layers (50) are then applied to the outer fibrous layers to permanently secure the tufts in place. Thus, the laminates of this

reference require at least five separate layers; an inner insulating layer; two fibrous outer layers which are needled together with the insulating layer from both sides to form tufted outer layers; and two adhesive layers which are used to permanently bond the tufts to the fibrous layers. This technique of employing adhesively bonded tufts provides strength in the Z direction (column 4, lines 33-37).

In stark contrast to the products described in Hiers et al '622, the wall and floor coverings defined by the present claims are composed of a carrier consisting essentially of a binder-consolidated glass fiber mat needled to a non-woven mat of thermally fixed organic synthetic fibers, and one or more layers coated on the outer glass fiber side of the carrier. The glass fiber and non-woven mats are needled together such that a part of the organic fibers penetrate through the opposite surface of the glass fiber mat and lie adjacent to the side of the mat opposite the non-woven organic fiber layer. Moreover, the present claims specify that the organic fibers are thermally fixed. This provides dimensional stability as discussed on page 6, lines 5-10 of the specification.

Since some of the organic fibers penetrate the surface of the glass fiber layer and lie adjacent thereto, they act to interlock and improve the bond between the glass fiber mat and the layer(s) subsequently applied to the mat. On the other and, in the articles of Hiers et al '622, an adhesive layer is required to bond the protruding fibers to the surface and also to provide a bonding surface for application of the protective foils (51, 52).

With respect to the claimed feature of thermally fixed organic fibers, the Office Action refers to column 3, lines 7-20 of Hiers et al. '622 as allegedly disclosing thermally fixed organic fibers. The U.S. Patent No. 4,237,180 cited in column 3, line

7 disclosed a fibrous batt containing a mixture of inorganic and organic fibers wherein the organic fibers are thermally shrunk and mechanically interlock with the inorganic fibers.

This disclosure does not anticipate the presently claimed feature of thermally fixing organic fibers in a non-woven mat to mechanically stabilize the carrier and the resulting wall and floor covering. Hiers et al. '622 does not disclose thermally fixing the organic fibers of the fibrous layers (41, 42) of the insulating shield. Also, the '180 patent disclosed in column 3, line 7 actually discourages use of thermal shrinking as being a difficult process, substantially uncontrollable, not resulting in uniform products and not providing greatly improved tensile strength.

The present claims also specify that the fiberglass mat is pre-consolidated with a binder. This feature also is not disclosed in Hiers et al. '622. Clearly, the presently claimed wall and floor coverings are not anticipated by this reference.

For at least the above reasons, the §102(e) rejection over Hiers et al. '622 is not an anticipation of any of the presently amended claims. Accordingly, this rejection should be withdrawn.

Claims 10 and 13 were rejected under 35 U.S.C. §103(a) as unpatentable over Hiers et al. '622 in view of Hiers '876 for the reasons given in paragraph (7) of the Office Action. Claims 6-8, 11, 12, 14 and 33 were rejected under 35 U.S.C. §103(a) as unpatentable over Hiers et al. '622 in view of U.S. Patent No. 5,171,629 to Heidel et al. for the reasons set forth in paragraph (8) of the Office Action. Claim 34 stands rejected under 35 U.S.C. §103(a) as obvious over Hiers et al. '622 in view of U.S. Patent No. 4,569,088 to Frankenburg et al. for reasons provided in paragraph (9) of the Office Action. Reconsideration and withdrawal of these rejections are

respectfully requested in view of the aforementioned amendments and for at least the reasons which follow.

Hiers et al. '622 fails to disclose or suggest the presently claimed wall or floor coverings for the reasons fully set forth above. The secondary reference to Hiers '876, Heidel et al. '629 and Frankenburg et al. '088 clearly do not supply the aforementioned deficiencies in the disclosure of Hiers et al. '622.

Hiers '876 has been applied to claims 10 and 13. Claim 10 specifies that the non-woven organic layer is hydraulically or mechanically pre-consolidated. Hiers '876 utterly fails to disclose or suggest that the organic non-woven can be pre-consolidated, let alone by mechanical or hydraulic means.

Heidel et al. '629 is directed to a flame-resistant carrier web end-consolidated with a melamine-formaldehyde precondensate and intended to be impregnated with bitumen for use in roofing and sealing. The products of Hiers et al. '622 are not seen to be compatible with further processing such as end-consolidation or impregnation with hot bitumen. Those of ordinary skill in this art would not be motivated to modify the products of Hiers et al. '622 in accordance with the teachings of Heidel et al. '629 since there would be no reasonable expectation that the proposed modification would be successful.

Frankenburg et al. '088 is directed to the preparation of garments, a far cry from the technology of Hiers et al. '622. Applicant submits that those of ordinary skill in the art, seeking an alternative needling technique to that disclosed in Hiers et al. '622, would not likely look in the direction of garment manufacture to solve problems prevalent in the area of thermal and acoustical shields in automobile manufacture as in Hiers et al. '622.

For at least the above reasons ,the §103(a) rejections based on Hiers et al. '622 in view of Hiers '876 or Heidel et al. '629 or Frankenburg et al. '088 should be withdrawn. Such action is earnestly solicited.


From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6683 at her earliest convenience.

Respectfully submitted,

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